UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/092,662 | 03/06/2002 | Masashi Yano | 16869N -045500US | 3839 |

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| EXAMINER |
|---|
| ORTIZ, BELIX M |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2175 | $\mathcal{L}$ |

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) _1-9_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-9_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _06 March 2002_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☒ All　b) ☐ Some * c) ☐ None of:

　　　　1. ☒ Certified copies of the priority documents have been received.

　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

| | |
| :--- | :--- |
| 1) ☒ Notice of References Cited (PTO-892) | 4) ☐ Interview Summary (PTO-413) |
| 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 　　Paper No(s)/Mail Date. _____ . |
| 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) ☐ Notice of Informal Patent Application (PTO-152) |
| 　　Paper No(s)/Mail Date _____ . | 6) ☐ Other: _____ . |

## DETAILED ACTION

### *Drawings*

1.  The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: in figure 1, reference characters "118", in figure 4, reference character "409", and figure 10, reference character "1011" are not described in the written description. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2.  The drawings are objected to as failing to comply with 3 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the drawings: character "0111", in page 28, is not shown on the drawings.  A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.  The objection to the drawings will not be held in abeyance.

3.  Applicant is required to submit a proposed drawing correction in reply to this Office action.  However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction.  Failure to timely submit the proposed drawing correction will result in

the abandonment of the application.

## Claim Rejections - 35 USC § 102

4.  The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in.this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.  Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by

Fisher et al. (U.S. patent 6,535,891).

As to claim 1, Fisher et al. teaches a storage system (see abstract and column 1,

lines 12-16) comprising:

a plurality of storage physical devices (see column 1, lines 20-29);

means for controlling access to the plurality of storage physical devices (see

column 3, lines 47-54; column 3, lines 65-67; and column 4, lines 1-3);

an interface respectively provided between a host device and the storage

physical devices (column 9, lines 18-25);

setting means for selecting a specific storage physical device from the plurality of

storage physical devices, based on predetermined conditions and placing data

blocks therein (see column 1, lines 30-58); and

evaluation means for, when access for a data storage request is made from the

host device, evaluating whether the request matches the set conditions (see column 8,

lines 16-23; column 9, lines 18-25; and column 10, 28-33);

wherein when the result of evaluation by the evaluation means matches the set

conditions, a process for placing the data blocks in the storage physical device

selected according to the conditions is executed (see column 1, lines 30-39).


As to claim 2, <u>Fisher et al</u>. teaches a storage system comprising:

a storage sub-system including (see figure 1),

a plurality of storage physical devices (see column 1, lines 20-29);

means for controlling access to the plurality of storage physical devices (see

column 3, lines 47-54; column 3, lines 65-67; and column 4, lines 1-3);

at least one interface for returning a result of access to the

storage physical devices according to an access request from a host device (see

column 9, lines 18-25); and

an interface between a management device and the sub-system (see column 2,

lines 14-17);

setting means for selecting a specific storage physical device from the plurality of

storage physical devices, based on a policy preset to the storage sub-system from the

management device and placing data blocks therein (see column 1, lines 30-58);

the storage sub-system including evaluation means for, when access for a data

storage request is issued from the host device, evaluating whether the request matches

the preset policy (see column 8, lines 16-23 and column 10, lines 28-33); and

means for, when the result of evaluation by the evaluation means matches

conditions for the policy, executing a process for placing the data blocks in the

storage physical device selected by the policy (see column 1, lines 30-39).

As to claim 3, Fisher et al. teaches the storage system further including means

for relocating data blocks in the storage physical device based on the set conditions

upon relocation of the stored data blocks (see column 14, lines 64-67; column 15, lines

1-4; and column 17, lines 64-67).

As to claim 4, Fisher et al. teaches a storage system (see abstract and column 1,

lines 12-16) comprising:

a plurality of storage physical devices (see column 1, lines 20-29);

means for controlling access to the plurality of storage physical devices (see

column 3, lines 47-54; column 3, lines 65-67; and column 4, lines 1-3);

interface means provided between a host device and the storage physical

devices (see column 9, lines 18-25);

means for setting at least one policy to the storage system, the policy being a

policy set so as to select one of the plurality of storage physical devices for each data

structure in one file according to the data structure of the file or attributes attached to

the data structure where the data structure exists in the file upon storing the one file in

the storage system as viewed from the host device (see column 1, lines 30-58; column

8, lines 16-23; and column 10, lines 28-33); and

means for, when access for a file storage request is made from the host device,

applying the preset policy to the file subjected to the storage request to thereby evaluate

the result of application thereof (see column 9, lines 22-28);

wherein data blocks are placed in the corresponding storage physical device for

each data structure, based on the result of evaluation (see column 1, lines 30-39).


As to claim 5, Fisher et al. teaches wherein when information about a

band/transmission rate necessary for reproduction exists as attributes included in a data

structure provided for each object of each scene having multimedia data where the

information about the band/transmission rate or the multimedia data is object-encoded

when the file stored from the host device is of the multimedia data such as a moving

picture and voice, a storage physical device for placing data blocks therein

based on the band/transmission rate information set for each scene or for each object of

each scene is selected from the plurality of storage physical devices in the

storage system as the policy set to the storage system (see column 1, lines 52-58;

column 2, lines 62-67; and column 3, lines 1-10).

As to claim 6, <u>Fisher et al</u>. teaches the storage system further including means for storing management information for converting logic addresses accessed by the each host device into information for specifying the plurality of storage physical devices and physical addresses for the specified storage physical device (see column 1, lines 11-16; column 2, lines 7-10; and column 8, lines 19-23), and preset conditions, wherein when an access request to each data block is made from the host device according to the corresponding logical address, the preset conditions are applied to the access request to thereby evaluate the application thereof, and when the result of evaluation matches the conditions, the management information about the logical addresses and the physical addresses for the storage physical devices both associated with one another is operated to thereby place data blocks in a desired storage physical device (see column 1, lines 30-39; column 8, lines 16-23; column 9, lines 18-25; and column 10, lines 28-33).

As to claim 7, <u>Fisher et al</u>. teaches wherein when an access request to each data block is made from the host device according to the corresponding logical address (see column 9, lines 18-25), the preset conditions are applied to the access request to thereby evaluate the application thereof, and when the total number of data blocks placed in a storage physical device selected from the result of evaluation exceeds the full capacity of the storage physical device to be intended for storage, the data blocks are stored in other storage physical device of the storage system or the data blocks

already assigned to the storage physical device selected by the application of the conditions thereto are shifted to other storage physical device in the storage system, where the data blocks are stored in a free location thereof (see column 8, lines 5-7; column 8, lines 36-44; column 13, lines 61-63; and column 18, lines 13-20).

As to claim 8, <u>Fisher et al</u>. teaches the storage system when an access request to each data block is made from the host device according to the corresponding logical address (see column 9, lines 18-23), the preset conditions are applied to the access request to thereby evaluate the application thereof, and when the total number data blocks placed in a storage physical device selected from the result of evaluation exceeds the full capacity of the storage physical device to be intended for storage or a preset threshold value, the storage system has the function of notifying information about surpassing of the storage physical device in capacity or notifying information about the conditions that led up to the selection of the storage physical device (see column 13, lines 61-63).

As to claim 9, <u>Fisher et al</u>. teaches the storage system further including means for setting the conditions shared between the plurality of host devices when accessible from the plurality of host devices (see column 1, lines 30-58 and column 9, lines 18-25).

### *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is 703-305-7605. The examiner can normally be reached on moday-friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

bmo

August 18, 2004.

CHARLES RONES
PRIMARY EXAMINER